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Brief review of species of the genus *Pseudencyrtus* with description of a new species from Moscow Province, Russia (Hymenoptera: Encyrtidae)

V.A. Trjapitzin

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Diagnosis of the genus *Pseudencyrtus* Ashmead, 1900, list of its species with data on their geographical distribution and hosts, phytophagous cecidomyiids (Diptera: Cecidomyiidae), and description of *P. milovidovi* sp. n. from Moscow Province, Russia, are provided. The new species is compared with *P. salicicola* Sharkov, 1995, described from Sakhalin.

V.A. Trjapitzin, Zoological Institute, Russian Academy of Sciences, Universitetskaya nab. 1, St. Petersburg 199034, Russia.

Introduction

In 2003, I collected in the settlement Mamontovka (now part of town Pushkino), Moscow Prov., on willow (*Salix* sp.), one female of an encyrtid belonging to the genus *Pseudencyrtus*.

It occured to be a new species closely related to *P. salicicola* Sharkov, 1995 from Sakhalin. Till now, 10 species of *Pseudencyrtus* have been described in the world fauna, 7 of them being reared from gall-making Cecidomyiidae on willows (*Salix* spp.), pines (*Pinus* spp.) and the balsam fir (*Abies balsamea*). The primary parasitism was shown for *P. salicisstrobili* (Linnaeus) (Hemmerling, 1992). The distribution of the genus is Holarctic. Species of *Pseudencyrtus* are very common insects in northern parts of Holarctic, including Alaska, and reaching Hudson Bay in America, Barents Sea shore on the Kola Peninsula in Europe, and discovered in Yakutia in Asia. The genus belongs to the subfamily Encyrtinae, tribe Microteryini, subtribe Pseudencyrtina.

Pseudencyrtus Ashmead, 1900

Type species: *Encyrtus cecidomyiae* Howard, 1885, by original designation.

Diagnosis. *Female*. Body more or less compact or somewhat elongate. Occipital margin rounded or at least not sharp. Frontovertex broad. Antennal scape not broadened; funicle with 6 elongate segments; clava 3-articulate. Mandible with 3 teeth at apex. Pronotum short. Mesoscutum without parapsidal lines. Wings not abbreviate. Submarginal vein of forewing without triangular dilation in its apical third; marginal vein well developed, although short; postmarginal vein present. Apex of epipygium (distal part of abdominal syntergite IX) more or less overhanging the base of exerted part of ovipositor sheaths; apex of hypopygium (distal part of abdominal sternite VII) does not reach apex of gaster.

Male. Funicle segments of antenna uniformly elongate; clava entire.

Note. In the related genus *Pseudencyrtoides* Gordh & Trjapitzin, epipygium does not overhang the base of exerted part of ovipositor sheaths. Its only described species, *P. cupressi* Gordh & Trjapitzin, 1975, had been reared from galls of Cecidomyiidae on cypresses (*Cupressus* spp.) in USA.

Composition. The following species of *Pseudencyrtus* have been described:

P. bolus (Walker, 1844). Canada (Ontario), USA (Idaho). Ex galls of Diptera on *Salix* spp.

P. borealis MacGown, 1974. USA (Maine), ex *Paradiplosis tumifex* Gagné on *Abies balsamea*.

P. cecidomyiae (Howard, 1885). Canada (Ontario), USA (Maine, New York, Connecticut, Virginia). Ex *Rhabdophaga rigidae* (Osten Sacken) on *Salix* spp.

P. eumedes Trjapitzin, 1978. Spain, Sweden, Finland, Austria, Montenegro, Russia (Murmansk Prov., Karelia, Leningrad, Pskov, Tver', Moscow, Kaluga, Nizhny Novgorod, and Sverdlovsk provinces), Lithuania. Host unknown.

P. eupelmoides (Ratzeburg, 1848). Germany, ex galls of "*Cecidomyia salicina*" on *Salix aurita.*

P. idmon (Walker, 1848). Spain, Ireland, England, Denmark, Norway, Sweden, Finland, Germany, Czech Republic, Poland, Montenegro, Russia (Kaliningrad, Murmansk, Leningrad, and Vladimir provinces). In the Czech Republic, reared from *Thecodiplosis brachyntera* (Schwaegrichen) on *Pinus* spp.

P. ixion (Trjapitzin, 1967). Russia (Primorsk Terr.). Host unknown.

P. misellus (Dalman, 1820). England, The Netherlands, Denmark, Sweden, Finland, Germany, Hungary, Russia (Leningrad and Kursk provinces), Lithuania. Ex galls of Cecidomyiidae on *Salix* spp., including *Rhabdophaga rosaria* H. Loew. The record (Trjapitzin, 1967; Sharkov & Trjapitzin, 1995) from Primorsk Terr. of Russia, as parasitoid of *R. rosaria*, requires confirmation.

P. salicicola Sharkov, 1995. Sakhalin. Host unknown.

P. salicisstrobili (Linnaeus, 1761). England, The Netherlands, Sweden, Finland, Germany, Austria, former Czechoslovakia, Hungary, Rumania, Russia (Murmansk and Leningrad provinces, Yakutia). Ex galls of *Rhabdophaga rosaria* H. Loew, *R. dubia* Kieffer and *Wachtliella rosarium* Hardy on *Salix* spp.

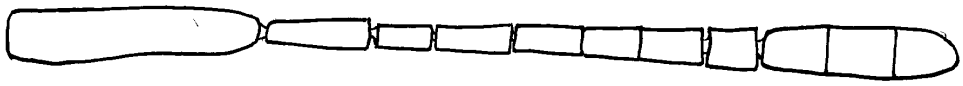
Pseudencyrtus milovidovi sp. n.
(see Figure)

Holotype. ♀, **Russia**, *Moscow Prov*., Mamontovka, settlement Sosnovka, on *Salix* sp., 23.VII.2003 (V.A. Trjapitzin); Zoological Institute, Russian Academy of Sciences, St. Petersburg.

Description. *Female*. Body moderately elongate, somewhat flattened. Occipital margin concave, not rounded. Temples (dorsal view) absent. Frontovertex about 1/3 the maximum head width (11 : 35) and, measured in the middle, somewhat longer than wide. Apical angle of ocellar triangle about 90°; distance from posterior ocelli to eye margins less than diameter of ocellus, but distance to occipital margin subequal to diameter of ocellus. Anterior margin of frons concave. Facial cavity deep, formed by antennal scrobes uniting above.

Interantennal prominence narrow. Antennal toruli rather high on the face, but below the level of inferior margins of eyes. Scape of antenna 4 times as long as wide, somewhat broadened near its base. Pedicel elongate, 2.8-3.5 times as long as wide at apex and longer than 1st funicular segment (7 : 4). Funicle only inconsiderably broadening distad, so that its 6th segment only about 1.7 times as wide as 1st segment; 1st funicular segment about twice as long as wide; 2nd segment a little longer than 1st (5 : 4) and 2.5 times as long as wide; 3rd segment as long as 2nd and twice as long as wide at apex; 4th segment a little shorter than 3rd (4 : 5) and somewhat longer than wide (4 : 3); 5th segment similar to 4th; 6th slightly shorter and wider than 5th. Clava somewhat longer than 3 preceding funicular segments combined and 2.7-3 times as long as wide. Greater diameter of eye less than malar space (11 :1 5). Subocular suture well developed. Mesoscutum slightly convex, wider than long (33 : 20). Scutellum also slightly convex, with rounded apex, as long as mesoscutum and its own maximum width. Wings not abbreviate; forewing 2.25 times as long as its greater width. Costal cell about 11 times as long as wide. Submarginal vein slightly bent before apex; marginal vein enlarged, broadening to apex, about twice as long as wide at apex; stigmal vein almost straight, with uncus at apex, the vein forming an angle somewhat less than 45° with anterior margin of wing; postmarginal vein as long as marginal vein and shorter than stigmal vein (5 : 7). Mesopleura not reaching the base of gaster, so that lateral parts of propodeum are in contact with hind coxae. Metapleura rudimentary, in the form of very narrow sclerites. Gaster as long as mesosoma. Exerted part of ovipositor sheaths somewhat less than 1/4 of gaster length (lateral view); epipygium overhanging the most part of sheaths (10 : 13).

Coloration, sculpture and pubescence. Body dark, with rather strong metallic lustre. Frontovertex with greenish bronze-violet lustre. Antennae black. Dorsal side of thorax with violet-bronze-green lustre. Tegulae dark. Forewings hyaline, only with small darkening immediately below marginal and stigmal veins. Mesopleura with green-blue-violet lustre. Legs black; knees of fore and middle legs black-brown; middle tibiae brown-black, with their spur blackish brown-yellow; fore and hind tarsi black-brown, middle tarsi blackish brown-yellow; apical segment of each tarsus dark. Exerted part of ovipositor sheaths black. Frontovertex minutely cellulate and punctulate. Mesoscutum and scutellum with cellulate sculpture and punctation. Mesopleura



Pseudencyrtus milovidovi sp. n., female, holotype, antenna.

with cellulate sculpture. Dorsal side of thorax with short dark hairs appressed to its surface.

Body length 1.6 mm.

Male unknown.

Etymology. The species is named after my teacher Victor Ivanovich Milovidov (Electrostal, Moscow Province).

Comments. In the coloration of body and slender antennae, the new species resembles *P. salicicola* Sharkov described from Sakhalin (Sharkov & Trjapitzin, 1995). The female of *P. milovidovi* differs from that of *P. salicicola* in the following main characters: (1) antennal clava as long as 3 preceding funicular segments combined (4 segments in *P. salicicola*); (2) 2nd funicular segment 2.5 times and 3rd segment twice as long as wide (only slightly longer than wide in *P. salicicola*). It is possible that *P. milovidovi* parasitizes some Cecidomyiidae living on willow near rivulet Vetelka where the species was collected.

Acknowledgements

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